

AMENDMENTS TO THE CLAIMS

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of claims:

1. (Currently amended) An isolated polypeptide comprising the enzymatic catalytic domains of 1,3-1,4- $\beta$ -D-glucanase and excluding the carboxyl terminal 78 amino acid residues of the 1,3-1,4- $\beta$ -D-glucanase, wherein the 1,3-1,4- $\beta$ -D-glucanase is a wild type 1,3-1,4- $\beta$ -D-glucanase having SEQ ID NO: 1 and wherein the isolated polypeptide has a higher enzymatic activity than the wild type 1,3-1,4- $\beta$ -D-glucanase, and wherein one of the catalytic domains includes the sequence of SEQ ID NO: 3 or 4.

2. (Withdrawn) The polypeptide of claim 1, wherein the polypeptide contains the sequence of SEQ ID NO: 7.

3. (Withdrawn) The polypeptide of claim 2, wherein the polypeptide contains the sequence of SEQ ID NO: 12.

4. (Cancelled).

5. (Previously Presented) An isolated polypeptide comprising the sequence of SEQ ID NO: 8 and excluding the carboxyl terminal 78 amino acid residues of SEQ ID NO: 1 wherein the isolated polypeptide has a higher enzymatic activity than a wild type 1,3-1,4- $\beta$ -D-glucanase having the sequence of SEQ ID NO: 1.

6. (Withdrawn) The polypeptide of claim 5, wherein the polypeptide contains the sequence of SEQ ID NO: 12.

7. (Withdrawn) The polypeptide of claim 6, wherein the polypeptide contains the sequence of SEQ ID NO: 13 or 15.

8. (Original) The polypeptide of claim 1, wherein the polypeptide is glycosylated.

9. (Withdrawn) The polypeptide of claim 8, wherein the polypeptide contains the sequence of SEQ ID NO: 7.

10. (Withdrawn) The polypeptide of claim 9, wherein the polypeptide contains the sequence of SEQ ID NO: 12.

11. (Cancelled).

12. (Previously Presented) The polypeptide of claim 5, wherein the polypeptide is glycosylated.

13. (Withdrawn) The polypeptide of claim 12, wherein the polypeptide contains the sequence of SEQ ID NO: 12.

14. (Withdrawn) The polypeptide of claim 13, wherein the polypeptide contains the sequence of SEQ ID NO: 13 or 15.

15. (Withdrawn) An isolated nucleic acid comprising a sequence that encodes the polypeptide of claim 1.

16. (Withdrawn) The nucleic acid of claim 15, wherein the polypeptide contains the sequence of SEQ ID NO: 7.

17. (Withdrawn) The nucleic acid of claim 16, wherein the polypeptide contains the sequence of SEQ ID NO: 12.

18. (Cancelled)

19. (Withdrawn) The nucleic acid of claim 15, wherein the polypeptide contains the sequence of SEQ ID NO: 8.

20. (Withdrawn) The nucleic acid of claim 19, wherein the polypeptide contains the sequence of SEQ ID NO: 12.

21. (Withdrawn) The nucleic acid of claim 20, wherein the polypeptide contains the sequence of SEQ ID NO: 13 or 15.

22. (Withdrawn) A vector comprising the nucleic acid of claim 15.

23. (Withdrawn) The vector of claim 22, wherein the polypeptide contains the sequence of SEQ ID NO: 7.

24. (Withdrawn) The vector of claim 22, wherein the polypeptide contains the sequence of SEQ ID NO: 8.

25. (Withdrawn) A host cell comprising the nucleic acid of claim 15.

26. (Withdrawn) The host cell of claim 25, wherein the host cell is a bacterium, yeast, insect, plant, or mammalian cell.

27. (Withdrawn) The host cell of claim 26, wherein the host cell is an *E. coli* or *P. pasrotis* cell.

28. (Withdrawn) A method of producing a polypeptide, the method comprising:

placing the host cell of claim 25 in a culture;  
expressing the polypeptide in the host cell; and,  
isolating the polypeptide from the culture.

29. (Previously Presented) The isolated polypeptide of claim 1, wherein the enzymatic catalytic domains include SEQ ID NOs: 3 and 4.